Introduction

Laryngomalacia and vocal cord dysfunction (VCD) are the two most common causes of pediatric stridor. While laryngomalacia is diagnosed by the presence of soft tissue within the airway, the presence of laryngeal obstruction varies in VCD. Children with laryngomalacia do not typically exhibit stridor at night, while those with VCD often do. For patients with VCD, surgical intervention may be necessary to improve symptoms and prevent aspiration. In this study, we present the outcomes of supraglottoplasty (SGP) for VCD in patients with laryngomalacia.

Methods and Materials

A retrospective study was performed, reviewing medical records of patients diagnosed with laryngomalacia and VCD at our hospital from 2003 to 2009. The primary outcome measure was resolution of VCD post-SGP. Of the 15 patients included in the study, 10 had laryngomalacia and 5 had VCD. All patients received SGP and were followed up for at least 1 year postoperatively.

Results

Seven patients were reviewed. Six patients had bilateral paresis and one patient had a unilateral paresis. Four patients had a history of respiratory distress and one patient had a history of prematurity. Three patients had a history of gastroesophageal reflux disease. Preoperative polysomnography (PSG) was performed in 3 patients, and the AHI improved from 45.3 to 3.6. Postoperative PSG was performed in 2 patients, and the AHI improved from 16.7 to 5.3. One patient required a tracheostomy for ongoing airway obstruction after failed Botox injections.

Conclusions

The two most common causes of stridor in children can occur concurrently. While management is often difficult and multifaceted, SGP may improve airway obstruction without increasing the risk of aspiration in these patients. Larger studies are necessary to further understand whether there is an association among these entities and to validate the use and safety of a SGP in this setting.

Bibliography